This worksheet will focus on determining your running and starting watt needs. The size of generator you need depends on your power requirements. Generally, a higher-wattage generator lets you power more items at once.

1. Select the items you wish to power at the same time. Using the chart on the opposite page, fill in the running watts and additional starting watt requirements on the “Your Power Needs” worksheet.

2. Add the RUNNING WATTS of the items you wish to power. Enter this number in the TOTAL RUNNING WATTS column.

3. Select the ONE INDIVIDUAL ITEM with the highest number of additional starting watts. Take this ONE NUMBER, add it to your TOTAL RUNNING WATTS, and enter it in the TOTAL STARTING WATTS box.

### Example

<table>
<thead>
<tr>
<th>TOOL OR APPLIANCE</th>
<th>RUNNING (RATED) WATTS</th>
<th>ADDITIONAL STARTING WATTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Refrigerator/Freezer</td>
<td>800</td>
<td>1600</td>
</tr>
<tr>
<td>2. 1/2 HP Furnace Fan</td>
<td>800</td>
<td>1300</td>
</tr>
<tr>
<td>3. Deep Freezer</td>
<td>500</td>
<td>—</td>
</tr>
<tr>
<td>4. Television</td>
<td>500</td>
<td>—</td>
</tr>
<tr>
<td>5. Lights (6 x 75 watts)</td>
<td>450</td>
<td>—</td>
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<tr>
<td>6.</td>
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</tr>
<tr>
<td>7.</td>
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</tbody>
</table>

TOTAL RUNNING WATTS = 3050 + 1600 = 4650

With this example you need a generator that produces at least 3050 total running watts and 4650 total starting watts.

### Your Power Needs

<table>
<thead>
<tr>
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</table>

TOTAL RUNNING WATTS = __________ + __________ = __________

I need a generator that produces at least ________ total running watts and ________ total starting watts.

### Frequently Asked Questions

**How many watts does it take to power basic items in an average size house?**

In a typical home, essential items will average 5000 to 7500 watts of power to run.

**What is the difference between running watts and starting watts?**

Running, or rated watts are the continuous watts needed to keep items running. Starting watts are extra watts needed for 2 to 3 seconds to start motor-driven products like a refrigerator or circular saw, this is the maximum voltage the generator can produce.

**Why is only one additional starting watt item used to calculate your total starting watt requirement?**

Unlike running watts, starting watts are only needed during the first few seconds of operation. In most cases, only one item will start or cycle at the same time, therefore this is the most accurate estimate.

**What if I can’t determine the running or the starting watt requirement for a tool or appliance?**

If the running watts are not on the tool or appliance, you may estimate using the following equation: WATTS = VOLTS x AMPS.

Only motor-driven items will require additional starting watts. The additional starting watts required may be estimated at 1 to 3 times the running/rated watts.

### Warning!

Allow 1 to 3 times the listed rated watts for starting devices. These are approximate values and the appliance should be checked for actual ratings.
## Wattage Reference Guide

### Home

#### Essentials:
- **Electric Water Heater**: 4000 Watts (0 Additional Starting Watts)
- **Light Bulb - 40 Watt**: 40 Watts (0 Additional Starting Watts)
- **Light Bulb - 75 Watt**: 75 Watts (0 Additional Starting Watts)
- **Refrigerator/Freezer**: 1000 Watts (2000 Additional Starting Watts)
- **Sump Pump - 1/3 HP**: 800 Watts (2100 Additional Starting Watts)
- **Sump Pump - 1/2 HP**: 1050 Watts (2200 Additional Starting Watts)
- **Water Well Pump - 1/3 HP**: 1250 Watts (3750 Additional Starting Watts)

#### Heating/Cooling:
- **Central AC - 10,000 BTU**: 1500 Watts (3000 Additional Starting Watts)
- **Central AC - 24,000 BTU**: 3800 Watts (4950 Additional Starting Watts)
- **Central AC - 40,000 BTU**: 6000 Watts (6700 Additional Starting Watts)
- **Furnace Fan Blower - 1/2 HP**: 800 Watts (2350 Additional Starting Watts)
- **Furnace Fan Blower - 1/3 HP**: 700 Watts (1400 Additional Starting Watts)
- **Heat Pump**: 4700 Watts (4500 Additional Starting Watts)
- **Humidifier - 13 Gal**: 175 Watts (0 Additional Starting Watts)
- **Space Heater**: 1800 Watts (0 Additional Starting Watts)
- **Window AC - 10,000 BTU**: 1200 Watts (1800 Additional Starting Watts)
- **Window AC - 12,000 BTU**: 3250 Watts (3950 Additional Starting Watts)

#### Laundry Room:
- **Clothes Dryer - Electric**: 5400 Watts (1350 Additional Starting Watts)
- **Clothes Dryer - Gas**: 700 Watts (1800 Additional Starting Watts)

### Work

#### DIY/Job Site:
- **Air Compressor - 1/4 HP**: 975 Watts (1600 Additional Starting Watts)
- **Air Compressor - 1 HP**: 1600 Watts (4800 Additional Starting Watts)
- **Airless Sprayer - 1/3 HP**: 600 Watts (1800 Additional Starting Watts)
- **Belt Sander**: 1100 Watts (3300 Additional Starting Watts)
- **Circular Saw - 7 1/4"**: 1400 Watts (4200 Additional Starting Watts)
- **Electric Drill - 3/8", 4 Amps**: 440 Watts (600 Additional Starting Watts)
- **Electric Drill - 1/2", 5.4 Amps**: 600 Watts (900 Additional Starting Watts)
- **Hammer Drill**: 1000 Watts (3000 Additional Starting Watts)
- **Miter Saw - 10"**: 1800 Watts (1800 Additional Starting Watts)
- **Planer/Jointer - 6"**: 1800 Watts (1800 Additional Starting Watts)

#### Office Equipment:
- **Computer w/17" Monitor**: 800 Watts (0 Additional Starting Watts)
- **Copy Machine**: 1600 Watts (0 Additional Starting Watts)
- **Fax Machine**: 65 Watts (0 Additional Starting Watts)
- **Ink jet Printer**: 80 Watts (0 Additional Starting Watts)
- **Laser Printer**: 950 Watts (0 Additional Starting Watts)

### Play

#### Tailgating/Camping:
- **AM/FM Radio**: 100 Watts (0 Additional Starting Watts)
- **Box Fan - 20"**: 200 Watts (0 Additional Starting Watts)
- **CD/DVD Player**: 100 Watts (0 Additional Starting Watts)
- **Cell Phone Battery Charger**: 25 Watts (0 Additional Starting Watts)
- **Color TV - 13"**: 150 Watts (0 Additional Starting Watts)
- **Electric Grill**: 1650 Watts (0 Additional Starting Watts)
- **Outdoor Light String**: 250 Watts (0 Additional Starting Watts)
- **Inflator Pump**: 50 Watts (150 Additional Starting Watts)

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